CLAIMS

1. Use of an inhibitor of glucosylceramide synthase, said inhibitor being a deoxynojirimycin derivative, or a pharmaceutically acceptable salt thereof, for the preparation of a medicament for the treatment of insulin resistance.

2. Use of an inhibitor of glucosylceramide synthase, said inhibitor being a deoxynojirimycin derivative, or a pharmaceutically acceptable salt thereof, for the preparation of a medicament for the treatment of hyperpigmentation and/or inflammatory processes in the skin.

3. Use of an inhibitor of glucosyl ceramide synthase, said inhibitor being a deoxynojirimycin derivative, or a pharmaceutically acceptable salt thereof, for the preparation of a medicament for the treatment of a fungal disease.

4. Use of an inhibitor of glucosylceramide synthase, said inhibitor being a deoxynojirimycin derivative, or a pharmaceutically acceptable salt thereof, for the preparation of a medicament for the treatment of a microbacterial infection.

5. Use of an inhibitor of glucosylceramide synthase, said inhibitor being a deoxynojirimycin derivative, or a pharmaceutically acceptable salt thereof, for the preparation of a medicament for the treatment of overweight and obesity.

6. Use according to any of claims 1-5 wherein said inhibitor has an IC50 value *in vivo* for glucosylceramide synthase of less than 1 mM.

7. Use according to any of claims 1-6 wherein said inhibitor has an IC50 value in vitro for at least two of sucrase, maltase and lactase of more than 5 mM.

8. Use according to claim 7 wherein said inhibitor has an *in vivo* IC50 for glucosylceramide synthase of less than 1 mM and an *in vitro* IC50 value for sucrase, maltase and/or lactase of more than 0.5 mM.

9. Use according to any of claims 1-8, wherein said deoxynojirimycin derivative comprises an apolar side chain linked to the nitrogen atom of the deoxynojirimycin.

10. Use according to claim 9, wherein said apolar side chain comprises a large hydrophobic moiety.

11. Use according to claim 9 or 10, wherein said large hydrophobic moiety is linked to said nitrogen atom of the deoxynojirimycin by means of a spacer comprising an alkoxy polyalkylene or polyalkylene chain of from 3 to 8 carbon atoms.

12. Use according to claim 10 or 11, wherein said large hydrophobic moiety is derived from a compound selected from the group consisting of adamantanemethanol, cholesterol, β-cholestanol, adamantanol and 9-hydroxyphenanthrene.

13. Use according to any one of claims 9-12, wherein said apolar side chain is derived from a polycyclic alcohol containing three or more rings each sharing two or more carbon atoms with another ring and is capable of inserting in lipid bilayers, and wherein the spacer comprises an alkoxy polyalkene or polyalkene chain of from 3 to 8 carbon atoms.

14. Use according to any of claims 1-13, wherein said deoxynojirimycin comprises N-(5-adamantane-1-yl-methoxy-pentyl)deoxynojirimycin or a derivative or an analogue thereof.

15. Method of treatment of an individual suffering from insulin resistance, comprising administrating to said individual an effective amount of a medicament comprising a deoxynojirimycin derivative, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, which deoxynojirimycin derivative or salt is an inhibitor of glucosylceramide synthase.

16. Method of treatment of an individual suffering from a disease selected from the group consisting of hyperpigmentation and/or inflammatory processes in the skin, fungal diseases, overweight and obesity, and microbacterial infections, comprising

administrating to said individual an effective amount of a medicament comprising a deoxynojirimycin derivative, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.